

Appl. No. 10/662,073
Amdt. dated February 12, 2007
Reply to Office Action of January 10, 2007

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An absorbent composite comprising superabsorbent material[[,]]; wherein the superabsorbent material has an Absorption Time of about $5+10a^2$ minutes or greater, wherein a is the mean particle size of the superabsorbent material in millimeters, and a liquid capacity of about 15 g/g or greater, a Drop Penetration Value of about 2 seconds or less, and a $\frac{1}{2}$ Float Saturation of about 50% or less;
wherein the superabsorbent material has been neutralized from 30 mole % to 65 mole % with a monovalent metal hydroxide, and from 5 mole % to 40 mole % with a divalent metal hydroxide; and
wherein the absorbent composite exhibits a Drop Penetration Value of about 2 seconds or less as measured by the Saline Drop Penetration Test.
2. (original) The absorbent composite of Claim 1, wherein the superabsorbent material has a liquid capacity of about 25 g/g or greater.
3. (original) The absorbent composite of Claim 1, wherein the superabsorbent material has an Absorption Time of about $10+10a^2$ minutes or greater.
4. (original) The absorbent composite of Claim 1, wherein the superabsorbent material has a Gel Bed Permeability of about $20 \times 10^{-9} \text{ cm}^2$ or greater.

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5. (original) The absorbent composite of Claim 1, wherein the superabsorbent material is substantially homogeneously distributed within the absorbent composite.
6. (original) The absorbent composite of Claim 1, wherein the superabsorbent material is zoned within a target area of the absorbent composite.
7. (original) The absorbent composite of Claim 1, wherein the absorbent composite comprises a plurality of layers and the superabsorbent material is located in a layer of the absorbent composite.
8. (original) The absorbent composite of Claim 7, wherein the superabsorbent material is zoned within a target area of the layer of the absorbent composite.
9. (original) The absorbent composite of Claim 1, wherein the superabsorbent material is zoned along the perimeter of the absorbent composite.
10. (currently amended) The absorbent composite of Claim 1, wherein the superabsorbent ~~materials are~~ material is laminated onto a substrate.
11. (canceled).

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12. (currently amended) A disposable product comprising an absorbent composite[.];
wherein the absorbent composite comprises a superabsorbent material having an Absorption Time of about $5+10 a^2$ minutes or greater, wherein a is the mean particle size of the superabsorbent material in millimeters, and a liquid capacity of about 15 g/g or greater, a Drop Penetration Value of about 2 seconds or less, and a $\frac{1}{2}$ Float Saturation of about 50% or less;

wherein the superabsorbent material has been neutralized from 30 mole % to 65 mole % with a monovalent metal hydroxide, and from 5 mole % to 40 mole % with a divalent metal hydroxide; and

wherein the absorbent composite exhibits a Drop Penetration Value of about 2 seconds or less as measured by the Saline Drop Penetration Test.

13. (original) The disposable product of Claim 12, wherein the superabsorbent material has a liquid capacity of about 25 g/g or greater.

14. (original) The disposable product of Claim 12, wherein the superabsorbent material has an Absorption Time of about $10+10 a^2$ minutes or greater.

15. (original) The disposable product of Claim 12, wherein the superabsorbent material has a Gel Bed Permeability of about $20 \times 10^{-9} \text{ cm}^2$ or greater.

16. (original) The disposable product of Claim 12, wherein the superabsorbent material is substantially homogeneously distributed within the absorbent composite.

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17. (original) The disposable product of Claim 12, wherein the superabsorbent material is zoned within a target area of the absorbent composite.
18. (original) The disposable product of Claim 12, wherein the absorbent composite comprises a plurality of layers and the superabsorbent material is located in a layer of the absorbent composite.
19. (original) The disposable product of Claim 18, wherein the superabsorbent material is zoned within a target area of the layer of the absorbent composite.
20. (original) The disposable product of Claim 12, wherein the superabsorbent material is zoned along the perimeter of the absorbent composite.
21. (currently amended) The disposable product of Claim 12, wherein the superabsorbent ~~materials~~ are material is laminated onto a substrate.
22. (original) The disposable product of Claim 12, wherein the disposable product is selected from a diaper, an adult incontinence product, a bed pad, a sanitary napkin, a tampon, a tissue, a wipe, a tissue, a bib, a wound dressing, or food packaging.

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23. (currently amended) An absorbent disposable garment comprising:

a body-side liner;

an outer cover superposed in facing relation with the body-side liner; and,

an absorbent composite located between the body-side liner and the outer cover,

wherein the absorbent composite comprises superabsorbent material having an Absorption Time of about $5+10a^2$ minutes or greater, wherein a is the mean particle size of the superabsorbent material in millimeters, and a liquid capacity of about 15 g/g or greater, ~~a Drop Penetration Value of about 2 seconds or less, and a $\frac{1}{2}$ Float Saturation of about 50% or less;~~

wherein the superabsorbent material has been neutralized from 30 mole % to 65 mole % with a monovalent metal hydroxide, and from 5 mole % to 40 mole % with a divalent metal hydroxide; and

wherein the absorbent composite exhibits a Drop Penetration Value of about 2 seconds or less as measured by the Saline Drop Penetration Test.

24. (new) The absorbent composite of claim 1 wherein the monovalent metal hydroxide is sodium hydroxide and the divalent metal hydroxide is selected from the group consisting of calcium hydroxide and magnesium hydroxide.

25. (new) The disposable product of claim 12 wherein the monovalent metal hydroxide is sodium hydroxide and the divalent metal hydroxide is selected from the group consisting of calcium hydroxide and magnesium hydroxide.

26. (new) The absorbent disposable garment of claim 23 wherein the monovalent metal hydroxide is sodium hydroxide and the divalent metal hydroxide is selected from the group consisting of calcium hydroxide and magnesium hydroxide.